

CLAIMS

1. A polarizing plate with optical compensation function, the polarizing plate comprises a polarizing layer and an optically compensating layer, wherein
5 the optically compensating layer comprises an optically compensating A-layer comprising a polymer film, and an optically compensating B-layer comprising a cholesteric liquid crystal layer.
2. The polarizing plate with optical compensation function according to claim 1,
10 wherein the polarizing layer and the optically compensating layer are arranged so that an angle formed by an absorption axis of the polarizing layer and a slow axis of the optically compensating A-layer is not smaller than 85° and not larger than 95°.
3. The polarizing plate with optical compensation function according to claim 1,
15 wherein the optically compensating A-layer meets requirements indicated by the following formulae (I) and (II):
$$20 \text{ (nm)} \leq R_e \leq 300 \text{ (nm)} \quad \text{(I)}$$
$$1.2 \leq R_{th}/R_e \quad \text{(II)}$$

in the formulae,
20 R_e (retardation value in normal direction) = $(n_x - n_y) \cdot d$
 R_{th} (retardation value in thickness direction) = $(n_x - n_z) \cdot d$;
where n_x , n_y and n_z respectively denote refractive indices of X axis, Y axis and Z axis in the optically compensating A-layer; the X axis denotes an axial direction presenting a maximum refractive index within the optically compensating A-layer,
25 the Y axis denotes an axial direction perpendicular to the X axis within the optically compensating A-layer, and the Z axis denotes a thickness direction perpendicular to the X axis and the Y axis; 'd' denotes the thickness of the optically compensating A-layer.
- 30 4. The polarizing plate with optical compensation function according to claim 1, wherein a selectively reflection wavelength range of the cholesteric liquid crystal layer is in a range not larger than 350 nm.
5. The polarizing plate with optical compensation function according to claim 1,
35 further comprising at least one of an alignment layer and a base.
6. The polarizing plate with optical compensation function according to claim 1,

wherein the polymer film is either a stretched film or a liquid crystal film.

7. The polarizing plate with optical compensation function according to claim 1,
further comprising a pressure-sensitive adhesive layer, the pressure-sensitive
5 adhesive layer being arranged on one of the surfaces of the polarizing plate.

8. A liquid crystal display comprising a liquid crystal cell and a polarizing plate,
wherein the polarizing plate is the polarizing plate of claim 1 and is arranged on at
least one surface of the liquid crystal cell.

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9. An image display comprising the polarizing plate according to claim 1.